

Claims

1. A composition comprising an organic pigment and an organic dyestuff soluble in an organic solvent (solvent dye).
2. The composition according to claim 1 which is a solid mixture.
- 5 3. The composition according to claim 1 or 2, wherein the pigment/solvent dye ratio is (99-1) : (1-99), preferably (98-10) : (2-90) and most preferred (95-30) : (5-70).
4. The composition according to claim 3, wherein the pigment/solvent dye ratio is (95-65) : (5-35).
5. The composition according to any one of claims 1 to 4 wherein the organic pigment is
- 10 coated with printing ink varnishes (ink vehicles), solvents and other additives, such as resin acids, the vehicle components or additives being mixed or coloured with the solvent dye either prior to or during processing.
6. The composition according to claim 5 comprising 70 to 90% of organic pigment/solvent dye and 30 to 10% of the printing ink varnishes (ink vehicles), solvents and other additives.
- 15 7. A pigment printing ink for lithographic printing systems comprising a pigment/solvent dye composition of any one of claims 1 to 4.
8. The pigment printing ink according to claim 7 comprising 0.1 to 70%, preferably 2 to 55%, of the pigment/solvent dye composition of claim 4, the remainder being customary printing ink varnishes, solvents and other additives.
- 20 9. A ready-to-use pigment printing ink according to claim 8 comprising 2 to 20%, preferably 12 to 18%, of the pigment/solvent dye composition.
10. A concentrated pigment printing ink according to claim 8 comprising 20 to 70%, preferably 20 to 55%, of the pigment/solvent dye composition.
11. A pigment printing ink for lithographic printing systems comprising a pigment/solvent dye
- 25 composition of any one of claims 5 and 6.
12. The pigment printing ink according to any one of claims 7 to 11 comprising as printing ink varnishes blends of high boiling distillates, alkyd resins, vegetable resins, and UV-curing resins, oligomers or monomers.
13. A process for the preparation of the compositions according to any one of claims 1 to 4
- 30 comprising mixing (grinding) the organic pigment and the solvent dye in a conventional manner in solid or liquid state.
14. A process for the preparation of the compositions according to any one of claims 5 and 6 comprising

(a) incorporating the printing ink varnish, which is premixed or coloured with the solvent dye, into a aqueous slurry of the organic pigment, isolating, and optionally drying it, or

(b) adding the printing ink varnish to an aqueous slurry of the solvent dye and then combining it with an aqueous slurry of the organic pigment, isolating, and optionally drying it,

5 or

(c) adding the printing ink varnish to an aqueous slurry of a solvent dye/organic pigment combination, isolating, and optionally drying it.

15. A process for the preparation of pigment printing ink preparations (printing inks) according to any one of claims 7 to 10 comprising incorporating the pigment/solvent dye composition into a printing ink varnish, or one of its components, by shear- or heat-inducing methods, and optionally combining the pigment/solvent dye loaded components with the other components of the varnish.

10 16. A process for the preparation of pigment printing ink preparations (printing inks) according to any one of claims 7 to 10 comprising incorporating the pigment and the solvent dye separately into a printing ink varnish, or one of its components, by shear- or heat-inducing methods, and optionally combining the pigment and solvent dye loaded components with the other components of the varnish.

15 17. A process for the preparation of printing ink preparations (printing inks) according to any one of claims 7 to 10 comprising premixing the printing ink varnish with the solvent dye and adding this combination to an aqueous slurry of the organic pigment, followed by isolating and optionally drying.

20 18. A process for the preparation of printing ink preparations (printing inks) according to any one of claims 7 to 10 comprising adding the varnish to an aqueous slurry of the solvent dye or to an aqueous slurry of the pigment/solvent combination, followed by isolating and optionally drying.

25 19. A process for the preparation of printing ink preparations (printing inks) according to claim 11 comprising diluting the compositions according to claims 5 or 6 with suitable solvents, resins, varnishes (ink vehicles) or varnish/ink vehicle components.

20 20. A process for the preparation of printing ink preparations (printing inks) according to any one of claims 7 to 12 comprising incorporating the solvent dye as solid or solution in an organic solvent to the finished printing ink, optionally followed by heating.

21. A lithographic printing process which comprises printing a flat substrate with a pigment printing ink preparation (printing ink) according to any one of claims 7 to 12 or a printing ink preparation (printing ink) prepared according to the processes of claim 15 to 20.